<u>REMARKS</u>

Reconsideration of the application is respectfully requested.

The Office Action objected claim 23 because of a typographical error. Claim 23 is being corrected to depend from claim 20 instead of claim 18 as suggested in the Office Action.

Applicant believes that the correction overcomes the objection.

The Office Action also rejected claims 1-9 under 35 U.S.C. §112, second paragraph because claim 1 recites in part, "coding errors may occur. Control and data flow analysis." It appears that a typographical error was made when typing in claim 1 in the original specification. Claim 1 is now amended to delete the phrase, "Control and data flow analysis." appearing after the first period. Accordingly, claim 1 is in proper form.

The Office Action further rejected claims 1-30 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,477,702 ("Saxe et al"). It is submitted that Saxe et al. does not disclose or suggest every element claimed in independent claims 1, 20 and 30 as amended. For instance, Saxe et al. does not disclose or suggest at least "performing a reachability analysis for at least removing one or more edges to reduce reachability," recited in claims 1, 20 and 30 as amended.

Rather, Saxe et al. as understood by applicant discloses a system and method for increasing the speed of operation of a theorem prover relating to program verification using adaptive pattern matching technique. The Office Action cites Column 11, lines 10-17 of Saxe et al. as allegedly disclosing reachability analysis. Those passages discuss adding an equivalence relationship to an E-graph. Contrary to the assertion in the Office Action, however, those passages do not disclose

or suggest performing a reachability analysis, which at least can result in removing one or more

edges to reduce reachability.

On the other hand, the present application as claimed in independent claims 1, 20 and 30,

performs reachability analysis to at least remove one or more edges to reduce reachability. For

example, although not limited to such, an interprocedural reachability analysis may be performed

on an interprocedural control graph to remove one or more edges to reduce the reachability. Saxe

et al. does not disclose or suggest such a method or system.

For at least the above reason, it is submitted that Saxe et al. does not anticipate

independent claims 1, 20 and 30 and their respective dependent claims by at least virtue of their

dependencies.

In view of the foregoing, applicant respectfully requests reconsideration, withdrawal of all

rejections, and allowance of all pending claims. If the Examiner believes a telephone conference

might expedite prosecution of this case, it is respectfully requested that he call applicant's attorney

at (516) 742-4343.

Respectfully submitted,

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